



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

TBPOC MEETING MINUTES

April 17, 2013, 9:00 AM – 1200 PM

Mission Bay Office, 325 Burma Road, Oakland, CA

Attendees: TBPOC Members: Steve Heminger (Chair), Andre Boutros, and Malcolm Dougherty
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Rosme Aguilar, Ade Akinsanya, Bill Casey, Clive Endress, Rich Foley, John Goodwin, Andrew Gordon, Ted Hall, Peter Lee, Brian Maroney, Steve Matty, Dina Noel, Will Shuck, Trish Stoops, Ken Terpstra, and Mazen Wahbeh
Guests: ABF: Brian Petersen, Peter Vander Waart, Bob Kick; TY Lin/M&N: Marwan Nader; IBECA: Salim Brahimi; CMF: Conrad Christensen

Convened: 9:00 AM

Items	Action
E-2 BOLTS WORKSHOP 1. What fix should be installed? – BATA Commission Meetings: 4/28 & 5/8/13 2. Should 2010 bolts be replaced? BATA Commission Meetings: 4/28 & 5/8/13 3. What caused 2008 bolts to fail? BATA Commission Meeting: 4/28/13 1. What fix should be installed? Currently there are 3 design alternatives underway (please refer to attached handouts provided in the meeting): A. <u>Option A</u> - Replace bolts, same as original design - <u>Status: Design at 65%</u> . This option would replace anchor rods and would require removal of shear keys; cut and removal of anchor rods in stages. Then re-installing shear keys, install rod extensions in stages, and grouting. Because of constructability	<ul style="list-style-type: none">• TBPOC instructed the team to eliminate Option A, and continue developing Options BD1, BD2, and C to 65% design, continue providing design status update to TBPOC on a weekly basis. Design JV targeted that 65% design on Option BD and C to be completed by end of April.• Team advised TBPOC of implementation cost of either of

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<p>and damage to shear keys risk issues, Team suggested to eliminate this option</p> <p>B. <u>Option BD</u> - Steel Collars, new design implementation of adding metal frame grillage around housing to hold it down- <u>Status: Design at 45%</u>. Does not require removal of shear keys and anchor bolts, potentially fast construction, however would require more coring and PT placement. Team is pursuing 2 alternatives within this option, design performance are same for both alternatives, schedule time may vary:</p> <p>a. BD1- Requires more upfront fabrication, and less time in construction (requires welding during fabrication and also on site during assembly)</p> <p>b. BD2- Less fabrication time and more work during construction, concept includes stacked plates of different size plates clamped together. Construction could start right after milling of plates, with only some plates requires fabrication (no welding required during fabrication or on site during assembly).</p> <p>C. <u>Option C</u> – Pre-Stressed Collars, new design implementation of post tensioning strands - <u>Status: Design at 30%</u>. This option has more concrete work and less steel. The main steel element is fabrication of saddle and post tensioning tie-down. Option C requires unique saddle system and extension of concrete cap construction, not as developed as Option BD.</p> <p><u>2. Should 2010 bolts be replaced?</u> Salim Brahimi, metallurgist working for ABF (also Chairman of ASTM International</p>	<p>the selected retrofit options would be around \$10M (the amount does not include replacement of 2010 rods). Scope, cost and schedule in development as design progresses.</p> <ul style="list-style-type: none"> • TBPOC indicated that Department has authorization to go ahead with fabrication of what is needed for Options BD, and C (it was noted that some of material fabricated for Option BD could be used for Option C, also some material ordered for BD2 could be used for the fabrication of BD1), for amount of up to \$4.3M which includes some upfront work, detailing, material placement and book for fabrication shop space (the amount was authorized per 4/11/12 TBPOC conference call meeting). <ul style="list-style-type: none"> • TBPOC advised the team to start the lab test on a selected number of bolts (to be decided by the team) as

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Items	Action
presence of hydrogen Salim stated the material met specification; however, additional requirements could have been given to manufacturer. Salim indicated that the lab result shows hydrogen in the metal. At this point, one could not determine whether this resulted due to manufacturing or due to environment (water in the pier cap).	

Adjourned: 12:00 PM

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April 17, 2013, 9:00 AM – 12:00 PM

APPROVED BY:



STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

6/6/13

Date



ANDRE BOUTROS,
Executive Director, California Transportation Commission

6/6/2013

Date



MALCOLM DOUGHERTY
Director, California Department of Transportation

6/6/2013

Date